ABANDONED OR INACTIVE URANIUM MINES IN NEW MEXICO

A report of investigation carried out between August 1979 and May 1980 under contract with the New Mexico Energy and Minerals Department.

by

Orin J. Anderson

New Mexico Bureau of Mines and
Mineral Resources
Open-File Report 148

INTRODUCTION

During the course of this investigation approximately 200 uranium mine sites were visited. Although these sites are distributed throughout 20 counties the majority are in McKinley, San Juan, and Valencia Counties, along the western and southern margin of the San Juan Basin. Other counties with an appreciable number of sites are Grant, Rio Arriba, Sandoval, Sierra, and Socorro.

Field work commenced in August, 1979 and extended although not continuously, into May, 1980. Information obtained during the on-site visits included location, type and size of mine, condition of mine, host formation, dimensions of remaining structures, proximity to residences or villages, water quality data, and radiation levels, although a gamma ray scintillometer was not obtained for the project until October 20, 1979. An effort was made to contact landowners whenever and wherever possible, however, no systematic attempt was made to determine land and mineral ownership during this phase of the investigation.

Mine operation data has been included where available. This consists of information on ore grades, production history mineralogy, and mine operator. Old publications of the U.S. AEC and the State Mine Inspectors office were helpful in this area.

The mine reports are arranged alphabetically by county with each county having its own index. A NM- or AZ-mine identification number is given with each mine name in the index. It is an AML numbering system devised by Don Baker, Jr. The first part of this

identification number is based on a U.S. Soil Conservation Service numbering system of 15' quadrangles beginning with 1 in the northwest corner of the state to 24 in the northeast corner, then returning to the western border to start a new tier. The second part refers to a 7½' quad within the 15' quad; these are numbered counterclockwise from 1 in the NE quadrant to 4 in the SE. The last part of the number refers to a particular mine within the 7½' quad. An AZ- prefix indicates the 15' quadrangle is an Arizona quad that overlaps the New Mexico state boundary.

Acknowledgments - The writer wishes to thank the following people for their valuable assistance in the field: Lars (Skip) Skotte, Richard Chamberlin, JoAnne Osburn, Mary Ann Anderson, and Cheryl Kyllonen.

A special thanks is extended to Mr. William Chenoweth of the U.S. Department of Energy, both for his time in the field as well as the claim maps and A.E.C. mine production records he provided. Mr. John Blagbrough provided helpful information about the Chuska district. The editorial assistance of Wyatt Brewster and Lars (Skip) Skotte is gratefully acknowledged.

The help and cooperation of the Navajo Tribe Office in Window Rock, Arizona permitted a statewide investigation to be completed; a note of thanks goes to Mr. R. Zaman and Mr. William Armstrong of that office.

Quad: Bread Springs 7½'

Quad: Church Rock 7½'

Quad: Dos Lomas 7½'

Date visited 12/5/79

Mine name(s) Santa Fe Christensen (Rimrock #1) County McKinley

Section SW¼ 3 Twnsh. 15 N R. 16 W

Quadrangle sheet Church Rock 7½'

Mining district Gallup

Elevation 7,520'

Nearest city and/or dwellings Church Rock is 4½ miles to the southwest

To reach the workings, go north from Church Rock 4½ miles to the southern ½ of section 29. Turn right, and go east for one mile just past several local dwellings, at which point the road forks. Take the right fork south for 1 3/4 miles to the Williams and Reynolds Mine. Proceed east by foot on an old road, from the mine for one mile. The Santa Fe Christensen is below the rim of the mesa (photo a).

The workings consist of two adits located 25' above the road surface, which must be reached by a wooden ladder (photo b). The westernmost, and largest of the adits is 6' x 6' x at least 60' deep (photo c). The portal and the first 15' of the adit is timbered. The second adit is 125' east of the larger western adit, and is 4' high x 6' wide x 15' deep (photo d). Ore was brought to road level through an ore chute (photo e), located between and below the two adits. No dump was noted below the workings, indicating that most of the material was removed by truck.

Mineralization is in a coaly, carbonaceous shale zone 15-20' above the base of the Dakota Sandstone (photo a). A yellow-green mineralization (perhaps tyuyamunite) was noted on some of the carbonaceous material. Scintillometer readings on the road below the adits averaged 220 cps, while the large adit had a maximum reading of 2,200 cps and the eastern adit had a maximum reading of 3,100 cps.

The mine was last registered with the State Mine Inspector's Office in 1975 as the Rimrock #1.

References: (1) Hilpert, L., 1969, Uranium Resources of Northwestern New Mexico, U.S.G.S., Prof. Paper 603, p. 43.
(2) U.S. AEC, uranium mine records.
(3) Mirsky, A., 1953, Preliminary report on uranium mineralization in the Dakota Sandstone, Zuni uplift, New Mexico, U.S. A.E.C. RME-47, 21 p.
(4) New Mexico State Mine Inspector's Office; inactive uranium mine file.

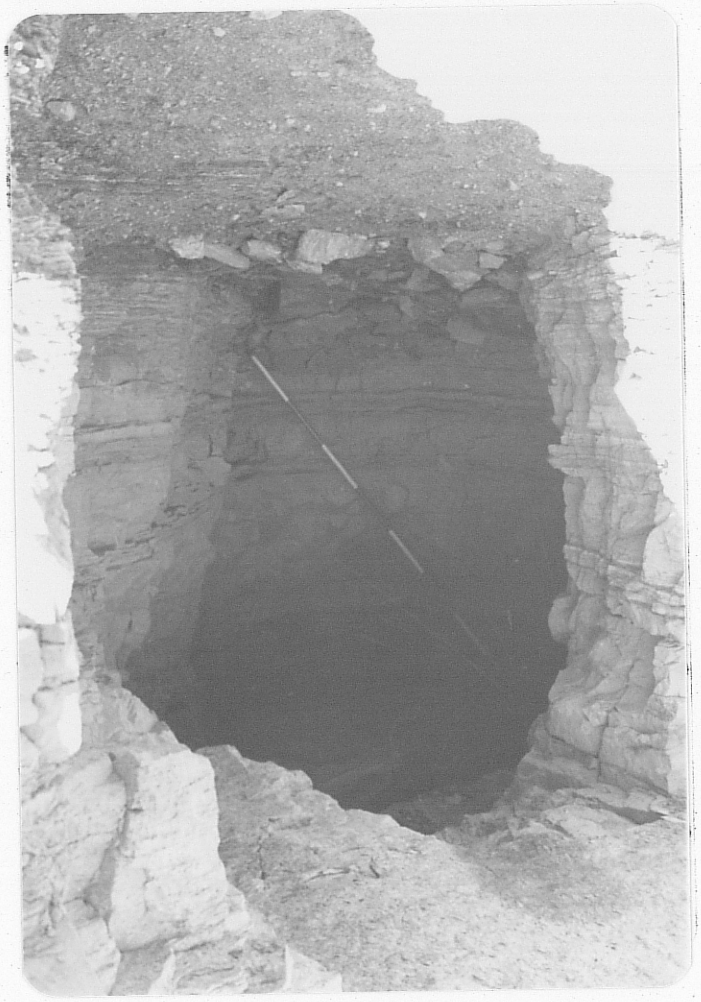

Photo (j) View northward into easternmost adit of the sec. 4 Rimrock workings.

Photo (a) Looking west at access to the Santa Fe Christensen. Note wooden platform in foreground, and Christensen adit circled in background.

Photo (b) Looking east at ladder leading to Santa Fe Christensen adits (circled). The ore chute (lower circle) is just to the right of the ladder.

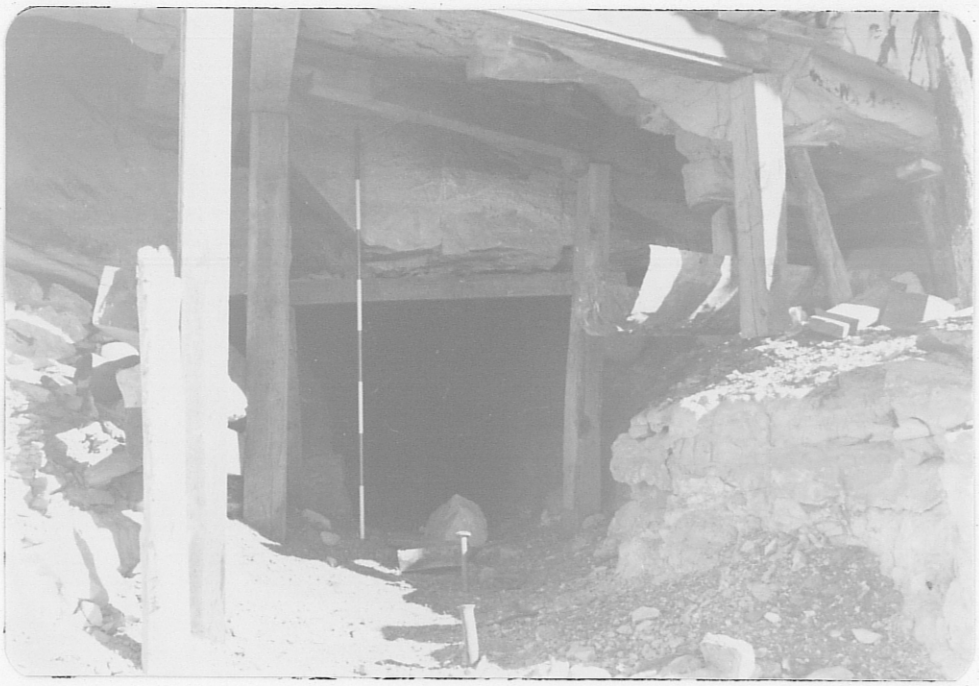

Photo (c) Looking NE at westernmost adit of the Santa Fe Christensen workings.

Photo (d) Looking east at the smaller adit on the Santa Fe Christensen workings. The adit is 125' east of the larger adit.

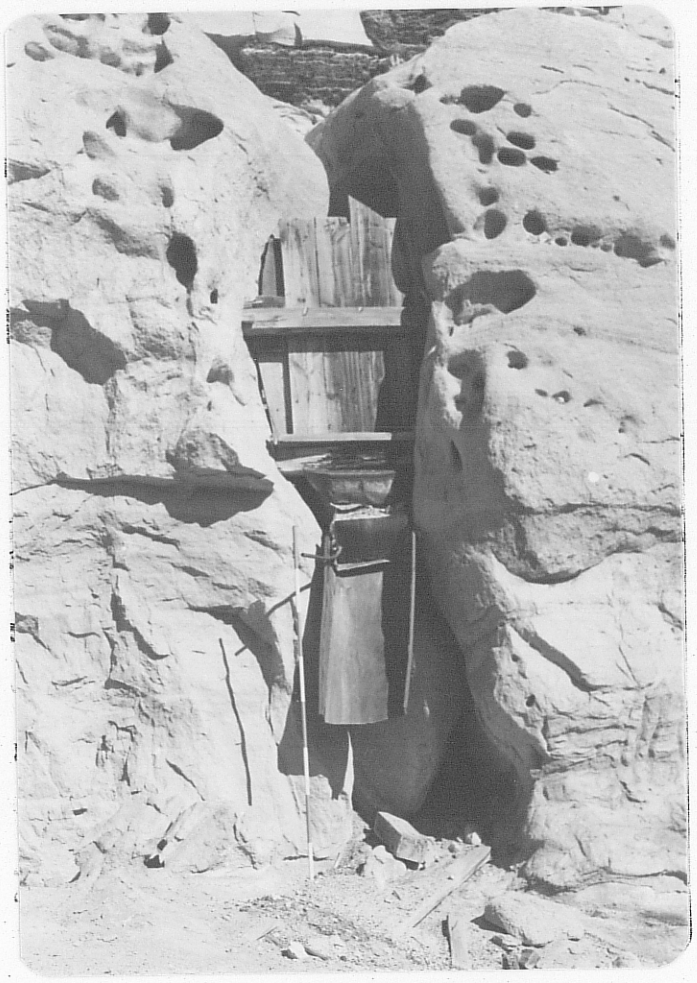

Photo (e) Looking north at the ore chute below the two Santa Fe Christensen adits.